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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,610	11/21/2003	Gi Hyeong Do	9988.071.00-US	8195

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EXAMINER	
GRAVINI, STEPHEN MICHAEL	
ART UNIT	PAPER NUMBER
3749	

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/717,610	DO, GI HYEONG	
	Examiner	Art Unit	
	Stephen Gravini	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *9-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) *9-14* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *20060404* .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

Claims 1, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Krüger (US 4,412,389). Krüger is considered to disclose the claimed invention comprising:

initiating a drying process at column 2 lines 18-24 wherein the disclosed beginning the early phase of a drying process with the drying system is turned on is considered to expressly anticipate the claimed drying procedure initiation because both show the initial beginning of a drying process;

measuring a temperature at column 2 lines 35-45 wherein the disclosed measuring the temperature difference is considered to expressly disclose the claimed temperature measurement because both steps measure temperature;

calculating a temperature variation rate at column 1 lines 50-65 wherein the disclosed calculating time or duration from the determined gradient to expressly anticipate the claimed temperature variation rate calculation because a temperature variation rate and gradient duration calculation are the same patentable steps to those skilled in the art;

calculating a drying time based on the temperature variation rate at column 5 lines 28-57 wherein the disclosed dryer operating time calculation based on a temperature gradient of change in temperature per change in time ($\Delta\theta/\Delta t$) is

considered to expressly anticipate the claimed drying time temperature variation rate calculation time because both steps use a change in temperature per change in time which to one skilled in the art defines a temperature variation rate;

performing the drying procedure for the calculated drying time at column 5 line 59 through column 6 line 64 wherein the disclosed operating duration is considered to expressly disclose the claimed drying procedure calculated time performance because both steps operate drying based on a time duration calculated from earlier discussed variables. Krüger is also considered to expressly disclose the claimed step of calculating a remaining drying time, wherein drying for the remaining drying time completes the drying procedure at column 6 lines 38-56 and inherently disclose the claimed step of wherein the remaining drying time is based on a known drying pattern, the known drying pattern varying according to an amount and type of laundry at column 3 line 53 through column 4 line 64 because variable amounts and types of laundry will have different remaining drying time basis such that measure temperature/time changes will change remaining drying times.

Claim Rejections - 35 USC § 103

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krűger in view of Wentzlaff et al. (US 5,628,684) . Krűger is considered to clearly anticipate the claimed invention except for the claimed substantial temperature increase as a function of variation(s) thereof. Wentzlaff , another dryer control method, is considered to disclose a substantial temperature increase as a function of variation(s) thereof at column 8 lines 1-59. It would have been obvious to one skilled in the art to

combine the teachings of Krűger with the substantial temperature increase as a function of variation(s) thereof, considered disclosed in Wentzlaff for the purpose of reliably measuring the drying time by calculating temperature variation rates during a laundry drying process.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krűger in view of Hyldon (US 3,792,956) . Krűger is considered to clearly anticipate the claimed invention except for the claimed one degree Celsius rate excess. Hyldon, another dryer control method, is considered to disclose a one degree Celsius rate excess at column 5 lines 24-42. It would have been obvious to one skilled in the art to combine the teachings of Krűger with the one degree Celsius rate excess, considered disclosed in Hyldon for the purpose of controlling temperature for better drying process rates affecting the desired output.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-8 and 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,775,923. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims reciting "calculating a temperature variation rate" is considered a broader recitation of the patented step "determining a medium temperature time by measuring a time lapse from said drying procedure initiating step to a point where the internal temperature reaches a medium temperature between a drying initiation temperature and a maximum drying temperature; setting a drying time based on the determined medium temperature time and performing the drying procedure for the set drying time."

It must be noted that assignee to the present application has a reasonable potential for an extreme number of double patenting rejections for the application. For example, assignee has more than 3000 published applications, excluding patented inventions. Of those applications two more applications could reasonably used in further double patenting rejections. Those applications include claims 3-9 of 10/912,039 and claims 1-17 10/994,415. It is requested that applicants share the prosecution burden and identify claims which may be potentially subject to double patenting rejections and amend the claims of the present application and/or file a terminal disclaimer as appropriate.

Response to Arguments

Applicant's arguments filed October 21, 2005 have been fully considered but they are not considered persuasive.

anticipation

Applicants argue that the last two independently claimed steps are patentable over primary reference Krüger because the claimed temperature variation rate is intended to be a predetermined change in a rate of change. The specification is not considered to support this interpretation of the claimed temperature variation rate. Current Office practice constrains examination of claimed terms to be broadly and reasonably construed in light of the specification. In this application the temperature variation rate is broadly and reasonably construed to be a change in temperature over a change in time. This claim construction is considered to be expressly disclosed in Krüger, as discussed in the rejection above. The rejection is considered proper and therefore maintained.

obviousness

Applicants argue that since the anticipatory rejection can be overcome, so should the obviousness rejection. However the anticipatory rejection is considered proper, as is the obviousness rejection, and therefore maintained. Applicant further argues that because the step of determining whether a change in temperature variation rate is substantial is allegedly patently distinct from secondary reference Wentzlaff. Applicant admits that Wentzlaff discloses calculating changes in temperature. To those skilled in the art, this temperature change calculation disclosure is substantial as claimed, since any change in temperate can be considered substantial. Further obviousness rejection arguments assert patentability without distinguishing the claimed invention over features found in the prior art. The rejections are considered proper and therefore maintained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571 272 4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SMG
April 4, 2006

Stephen Gravini